

AMENDMENTS TO THE DRAWINGS

*Attached is one replacement drawing sheet including FIGS. 17A and 17B
which should replace the original drawing sheet including FIGS. 17A and 17B.
FIGS. 17A and 17B have been amended to include the designation "PRIOR ART".*

Replacement Sheet

REMARKS

Favorable reconsideration of this application is respectfully requested in view of the following remarks.

The Official Action sets forth an objection to the drawing figures based on the observation that FIGS. 4A, 4B, 17A and 17B should be identified as prior art. FIG. 17A illustrates the portions of a heart while FIG. 17B is an electrocardiogram depicting the electrical activity of a normal heart. Under the circumstances, it seems odd to identify these drawing figures as prior art. Nevertheless, submitted with this Amendment is a replacement drawing sheet including amended versions of FIGS. 17A and 17B. These drawing figures have been labeled as "PRIOR ART".

With respect to FIGS. 4A and 4B, it is not clear why it is believed that these drawing figures should be labeled as prior art. The application describes that FIG. 4A is a waveform diagram showing an intraventricular electrogram and QT interval, while FIG. 4B represents a waveform diagram obtained by integrating the intraventricular electrogram. Further, page 16 of the application describes that the intraventricular electrogram shown in FIGS. 4A and 4B is a bit different from a usual intraventricular electrogram. It is thus believed that it is not necessary to label FIGS. 4A and 4B as prior art. Nevertheless, in the event the Examiner still has concerns about this point, the Examiner is kindly asked to contact the undersigned so that such matter can be resolved.

The Official Action also sets forth an objection to the disclosure based on the observation that priority benefits must be stated in the first sentence of the specification following the title or in an application data sheet. In this regard, the Official Action refers to § 201.11 of the Manual of Patent Examining Procedure. This

section of the Manual of Patent Examining Procedure discusses claims for priority under 35 U.S.C. § 120 and 119(e). However, the present application claims priority under 35 U.S.C. § 119(a) to two earlier filed Japanese applications. The undersigned is not aware of a requirement that a claim for priority under 35 U.S.C. § 119(a) must be stated in the first sentence of the specification following the title or in an application data sheet. Thus, considering the nature of the priority claim in this application, it is believed that it is not necessary to include priority claim in the first sentence of the application or in an application data sheet. If the undersigned has not fully understood the Examiner's concern on this point, the Examiner is once again kindly asked to contact the undersigned so that this issue can be discussed and resolved.

Paragraph "3" beginning on page two of the Official Action notes that incorporation of essential material in the specification by reference to an unpublished U.S. application, a foreign application or patent, or a publication is improper. It is not clear from the Official Action why this is relevant to the present application. The undersigned has reviewed the present application and has found no incorporation by reference. If the undersigned has overlooked an incorporation by reference or has simply not understood the Examiner's concern, the Examiner is kindly asked to contact the undersigned.

The paragraph at lines 14-16 on page ten of the application has been amended to correct an inadvertent error. Accordingly, withdrawal of the objection to the disclosure is respectfully requested.

Claim 9 has also been amended to refer to a blood sensor, thereby addressing the claim rejection set forth in the middle of page three of the Official

Action. Accordingly, withdrawal of the claim rejection based on the second paragraph of 35 U.S.C. § 112 is respectfully requested.

The claims originally filed with this application include Claims 1-23. Claims 1, 11 and 20 are the only independent claims. Each of those independent claims was rejected as being anticipated by the disclosure in U.S. Patent No. 5,330,507 to *Schwartz*. Reconsideration of the rejections set forth in the Official Action is respectfully requested.

The subject matter of this application pertains to heart treatment equipment and a heart treating method. As recited in original independent Claim 1, the heart treatment equipment includes a nerve stimulator that generates a nerve stimulating signal to stimulate a vagus nerve, a sensor that senses living body information of the patient, and a controller connected to the nerve stimulator and the sensor, with the controller controlling the nerve stimulator in response to output from the sensor.

As set forth in original independent Claim 11, the heart treatment equipment comprises the nerve stimulator together with a heart abnormal detector that detects an abnormal condition of the heart. The controller connects the nerve stimulator and the heart abnormal detector, and controls the nerve stimulator in response to output of the heart abnormal detector.

Schwartz discloses a method and apparatus for stimulating the right or left vagus nerve with electrical pulses. The method and apparatus are designed to automatically determine the need for vagal stimulation when an increase in the heart rate is greater than a predetermined threshold, when frequent or complex ventricular arrhythmias occur and/or when a change in the ST segment elevation greater than a predetermined or programmed threshold occurs. The apparatus possesses

programming and telemetry capabilities that allow the stimulation triggering indicators to be stored in memory. The disclosed apparatus utilizes nerve stimulating electrodes 74, 76 connected to a nerve pulse generator 126 which is controlled by a data register/telemetry in/out logic 110.

One of the differences between the heart treatment equipment at issue here and the disclosure in *Schwartz* is that in the heart treatment equipment here, the control of the nerve stimulator in response to the output of the sensor involves the use of a nerve stimulation parameter table memory. That is, the controller comprises a nerve stimulation parameter table memory at which is memorized at least one table relating to a plurality of nerve stimulation parameters in response to sensed values by the sensor. The controller controls the nerve stimulator based on control of the nerve stimulation parameter selected from the nerve stimulation parameter table memory. Independent Claim 1 has been amended to set forth this distinguishing aspect of the heart treatment equipment.

In connection with the heart treatment equipment recited in amended independent Claim 11, the controller comprises a nerve stimulation parameter table memory at which is memorized at least one table relating to a plurality of nerve stimulation parameters in response to output from the heart abnormal detector, and the controller controls the nerve stimulator based on the control of the nerve stimulation parameters selected from the nerve stimulation parameter table memory.

In *Schwartz*, there is no disclosure of a controller comprising a nerve stimulation parameter table memory at which is memorized at least one table relating to a plurality of nerve stimulation parameters in response to the output recited in independent Claims 1 and 11. Nor is there any disclosure of a controller that

controls nerve stimulation based on the control of the nerve stimulation parameters selected from such nerve stimulation parameter table memory. *Schwartz* merely describes that in order to develop program thresholds for operating the apparatus, ventricular tachycardia can be induced by exercising a patient on the treadmill while measuring various parameters such as the heart rate, ST segment elevation and the characteristics of complex ventricular arrhythmias. Based on the results of the workup and study, the physician is able to select programmable values for the rate and frequency detection criteria of ventricular tachyarrhythmias and the elevation threshold for the ST segment elevation characteristic of the threshold ventricular tachycardia that the physician seeks to treat by stimulating the vagal nerves.

In light of at least the foregoing difference between the claimed heart treatment equipment set forth in independent Claims 1 and 11 and the disclosure contained *Schwartz*, it is respectfully submitted that independent Claims 1 and 11, as well as the corresponding dependent claims, are allowable.

Original independent Claim 20 defines a heart treating method that involves sensing living body information and stimulating a vagus nerve in accordance with variable parameters suitable for the living body information in response to the sensed living body information. Claim 20 has been amended to define that the originally recited variable parameter is a variable parameter that is selected from a nerve stimulation parameter table. The method described in *Schwartz* does involve use of a nerve stimulation parameter table. Thus, *Schwartz* cannot be said to disclose a method that involves selecting from such a table a variable parameter suitable for the living body information in response to the sensed living body information.

It is thus believed that the claimed method recited in independent Claim 20 and dependent Claims 21-23 is also allowable.

Early and favorable action with respect to this application is respectfully requested.

Should any questions arise in connection with this application or should the Examiner believe that a telephone conference with the undersigned would be helpful in resolving any remaining issues pertaining to this application the undersigned respectfully requests that he be contacted at the number indicated below.

Respectfully submitted,

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